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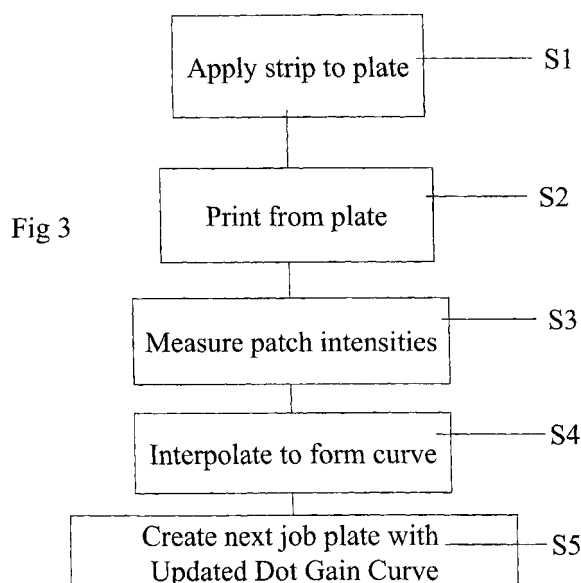
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(54) **Dot gain calibration method and apparatus**

(57) A dot gain calibration system which calculates a tone reproduction curve based on measured current printing parameters. A method for providing in use estimation of dot gain in digital printing using digital printing plates, the method comprising: applying to a digital printing plate a calibration strip, the strip comprising at least one set of patches, each patch comprising a plurality of dots at a predetermined gray level within said dynamic

range, gray levels of said set of patches being distributed over said dynamic range, printing from said calibration strip under a current set of printing conditions, measuring intensities of said printing, and interpolating from said measurements to generate a curve of dot gain over said dynamic range. The curve can then be used to compensate. When moving to a different set of printing conditions, a single test print is then carried out and a new dot gain estimation is available.



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EUROPEAN SEARCH REPORT

Application Number
EP 03 01 1658

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 16 June 2004	Examiner Heiner, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03/82 (P04001)



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EUROPEAN SEARCH REPORT

Application Number
EP 03 01 1658

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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
Place of search MUNICH		Date of completion of the search 16 June 2004	Examiner Heiner, C
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EPO FORM 1503 03 82 (P04C01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 03 01 1658

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-5,22

Dot gain calibration system for printing plates which calculates a tone reproduction curve based on measured current printing parameters. Uses tables with stored combinations of printing parameters and derives from these tables unknown combinations by extra-/interpolation.

2. Claims: 6,7,8,20,21

Describes special types of calibration templates (patches containing specific reproduction information) which can be used for measurement of dot gain for printing plates.

3. Claims: 9-19

Method for in-use prediction of dot gain calibration for printing plates by performing scheduled measurements.

The common concept of the claim groups 1-3 is only the calibration of dot gains concerning printing plates. This concept is well-known in the art, see for example D1. Consequently, the common concept is not new and therefore the claim groups are not linked by a common concept as required by Article 82 EPC.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 01 1658

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16-06-2004

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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